

REMARKS

Claims 1-30 are all the claims pending in the application.

Claim Rejections - 35 USC § 112

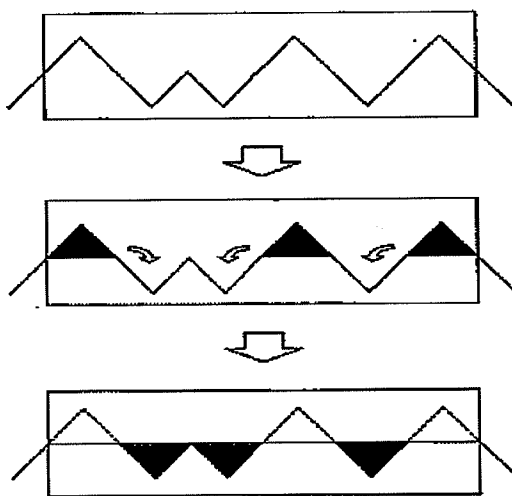
Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner again asserts that it is unclear as to how the occupation ratio is calculated as the claim does not define the parameters of this ratio. In view of the above amendment, and the following explanation, Applicant submits that this rejection has been overcome.

“Occupation ratio” is calculated by dividing “a sectional area of a virtual plane in a plane direction at a portion that is positioned at a depth of $x \mu\text{m}$ from the outermost surface position” by “an area of an overall surface of a portion that contacts the other member”.

Paragraph [0030] of Application Publication No. 2008/0034916 A1 states:

[0030] The wording “a sectional area of a virtual plane in a plane direction at a portion that is positioned at a depth of $x \mu\text{m}$ from the outermost surface position” signifies an area cut by this virtual plane in a situation that the virtual plane extending in the plane direction at the portion that is positioned at a depth of $x \mu\text{m}$ from the outermost surface position is assumed. Also, the wording “an area of an overall surface of a portion that contacts the other member” signifies an area obtained when this surface is assumed a flat surface (an increase of the area caused due to the presence of an inclined portion is corrected).

The drawing below illustrates “when this surface is assumed a flat surface (an increase of the area caused due to the presence of an inclined portion is corrected)” described in paragraph [0030].



Accordingly, it is respectfully requested that this rejection be withdrawn.

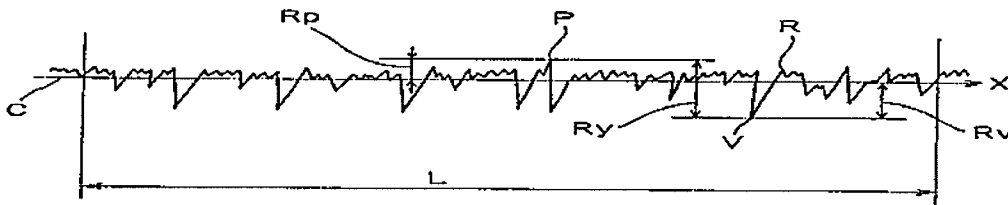
Claim Rejections - 35 USC § 102

Claims 1-30, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Sada, US Patent 5,997,988. This rejection is respectfully traversed for the following reasons.

In col. 3, lines 45-48, Sada teaches that the ratio of the open area of the very small recesses to the whole area of the rolling contact surface is set to 5 to 20% and more particularly, 5 to 10%. However, it is not clear as to at which point of depth the open area is defined.

If the open area is defined with reference to the outermost surface position, the teaching of Sada described above is totally different from what is recited in claims 1-3 of the present application.

And even if the open area is defined with reference to the center line C, the teaching of Sada is still different from the claimed invention for the reasons given below.



In col. 3, lines 41-45, Sada describes that the maximum height R_y is 1 to 3 μm , and that the ratio R_p/R_v is not less than 0.3. As for the latter condition, however, other descriptions of Sada teaches that the ratio R_p/R_v is not more than 0.3 (see, e.g., claim 1, col. 6, Table 1 and col. 7, lines 15-20). Accordingly, Applicant believes that it is reasonable to understand that “not less than 0.3” in col. 3 is a typographical error, and that the ratio R_p/R_v taught by Sada is actually not more than 0.3. Thus, the peak height R_p , which corresponds to the depth of the center line C from the outermost surface point, cannot be more than 0.9 μm (becomes 0.9 μm when $R_y = 3 \mu\text{m}$ and $R_p/R_v = 0.3$). Therefore, Sada fails to disclose the specific condition of the occupation ratio defined by a depth of $x \mu\text{m}$ from the outermost surface position, wherein x is either 2.0, 1.5 or 1.0, as required by the claimed invention.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: April 12, 2010

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